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THE AMERICAN PRACTITIONER.

JANUARY, 1871.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

PRACTICAL SUGGESTIONS FOR THE TREATMENT OF LACHRYMAL DISEASES.

BY C. R. AGNEW, M. D.

The title of my communication will relieve me from the necessity of attempting a systematic dissertation upon the general subject of lachrymal diseases, and show that my present purpose is to lay before the readers of the American Practitioner a few practical suggestions, in such a manner as to make them the property of all.

The commonest form in which incipient lachrymal disease presents itself to the practitioner is that of the "weeping eye," as it is familiarly called, so that a few words upon its pathology and treatment would naturally introduce our theme. It is observed that the patient begins to be annoyed by having the lachrymal secretion increased so as to overflow the edge of the lower lid and trickle down the cheek,

rendering the use of the handkerchief frequent, especially when the eyes are exposed to currents of cool air. This abnormity may follow immediately upon an ordinary catarrh of the eyes, or more commonly of the nostrils, or come on gradually without any recognized cause. When this state of stillicidium or overflow of tears occurs, the practitioner should examine with great care the puncta, to see whether they are of normal shape and in their proper relations to the surface of the eyeball.

Abnormities in the inferior punctum are to be met with more frequently than in the superior, and their influence in producing stillicidium is much more marked. Commonly one or more of the following lesions may be observed:

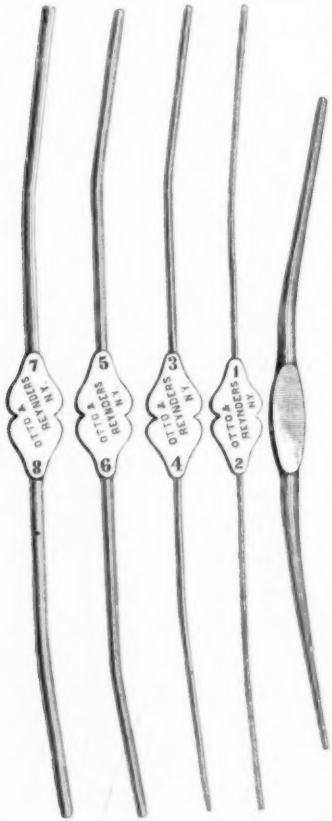
1. Eversion of punctum.
2. Obstruction or malformation of punctum.
3. Closure of punctum.
4. Inversion of punctum.

Any condition which alters either the shape or position of the inferior punctum is likely to cause stillicidium. For slight degrees of eversion the simple slitting up of the corresponding canaliculus is usually sufficient, care being taken to carry the cut down to the bottom of the vertical portion of the canal, that an opening may be made beneath the level of the secretion accumulating in the lacus lacrymarum. This simple procedure will do for slight degrees of eversion, such as we observe in the old subject, or in cases of chronic palpebral conjunctivitis; for all cases indeed in which there is not such a loss of substance in the corresponding lid as to render a blepharo-plastic operation necessary. It may be demanded also as one of the steps in a radical operation for eversion. The obstruction spoken of as forming one of the causes of stillicidium may be due to inflammatory or cicatricial changes in the edge of the lid, or in the lining of the canaliculus; but whatever its special cause, the only treatment indicated in the beginning is a free slitting of the canaliculus.

If there be inflammatory changes in the canal-lining they will require subsequent attention. We occasionally find obstruction due to a foreign body in the canaliculus. In two cases I have removed from the inferior canal dacryolites which had produced stillicidium, and become enlarged by slow accretion until they had reached the size of a barley-grain. When the inferior punctum is closed and stillicidium exists, we can usually find and open the corresponding canal by the following simple procedure: standing behind the patient and holding his head in such a manner as to give it firm support, the lower lid should be slightly everted, and its edge made tense by being drawn in the direction of the temple; then with a pair of scissors of medium size, so made as to cut at their very points, you should snip the edge of the eyelid perpendicularly to its conjunctival border to the depth of about a line and a half, cutting across the supposed course of the canaliculus. The canal once entered the usual slit should be made throughout its entire length, and treated afterward, to prevent closing, by running a probe daily between the raw edges until they have healed without uniting.

When stillicidium is due to inversion, some operation to correct the in-turning of the tarsal edge is usually necessary as a preliminary step, and before any interference with the punctum. I would recommend that in all instances in which Bowman's operation, or slitting of the canaliculus, is needed, the narrow, straight knife of Weber be used, and so carried forward in the act of cutting as to make the line of incision through the back wall of the canal rather than upward upon the tarsal edge, since by so doing the wound is not only hid from view, but placed in contact with the gathering lachrymal secretion. We should not be contented with simply correcting the apparent deformity or malposition of the punctum, but carefully explore the entire length of the canaliculus and nasal duct to ascertain whether there is any deeper disease or coëxisting stricture; a "weeping eye" may be due to a stricture

deep in the nasal duct. This exploration should not be done, when it can be avoided, until the wound made in slitting the canaliculus has partly healed along the edges, and thus grown less tender. I sometimes defer the deep exploration for a week or ten days, in the hope that Bowman's operation may suffice for a cure. To make this exploration you need a set of Bowman's probes, or the probe sold as Weber's, slightly bent to pass readily beneath the overhanging brow, choosing the smooth and not the notched one. Here, as in supposed stricture of the male urethra, make your first exploration with a full-sized probe or sound. By so doing you ascertain at once the seat of stricture and lessen the danger of producing a false passage. The probes numbered from one to eight are Bowman's; the remaining one is Weber's. A common seat of stricture is at the turn where the inferior canal empties into the lachrymal sac; and here, as in strictures of the urethra, you may often overcome the obstacle by delicately manipulating your probe. As the thickening is almost invariably in the floor of the canal, and not unfrequently of a nodular shape, you will usually pass it by, keeping the lid on the stretch, and depressing the handle of the instrument so as to press gently upward toward the



dome of the sac. If your probe does not readily enter, the ordinary strabismus-hook will be found a useful explorer, and likely to pass when the former does not. After entering the sac and impinging against the opposite wall, you should carry the probe into a vertical position and gently press onward toward the nasal duct. As the extremity of your probe passes behind the edge of the maxillary bone it approaches another common seat of stricture, and care is needed to prevent a false passage. Nothing is gained by violent pushing; a false passage may block the way to cure. From this point on for somewhat more than half an inch is a region of obstinate strictures. In this region, known as the maxillary portion of the nasal duct, the mucous membrane is closely identified with the periosteum, and hence inflammatory processes agglutinate the two membranes, and not unfrequently lead to hyperplasia not only of the mucous membrane, but of the periosteum and bone. If the stricture be permeable, I commonly pass a cylindrical laminaria probe, choosing a size that passes easily and yet fills the passage, and allow it to remain until by swelling it has received an impress of the stricture. If, for instance, there is a single dense stricture, it will make a marked impression upon the probe, preventing it from swelling at a corresponding point, and thus furnishing not only a measure of the depth of the stricture in the nasal duct, but an indication of its firmness. If you propose to incise the stricture, you are thus enabled to pass your knife on without hesitation or uncertainty to its seat. Care should be taken in withdrawing the laminaria probe not to twist or bend it so as to break it off in the duct. Should such an accident occur, I would push the broken fragment onward into the nostril, or withdraw it upward by enlarging the Bowman's slit so as to admit a pair of forceps into the tear-sac. I have never experienced the accident.

By the method indicated you have learned the seat and character of the stricture, and are now prepared to remove

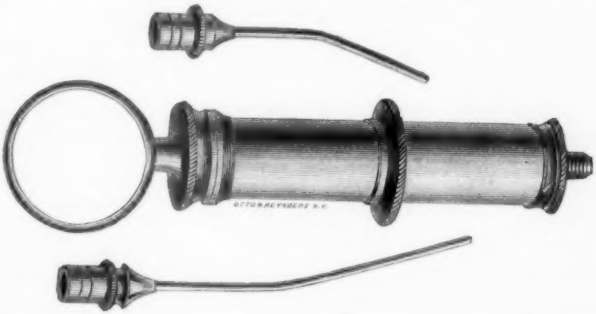
the real cause of the accumulation in the tear-sac and the backing up of secretion.

Some practitioners resort at once to a free incision of the stricture; others introduce a style made of leaden wire, fashioning its head so that it may lie concealed in the open canaliculus or bent over the edge of the lower lid near the commissure, and to be worn for weeks or months; others again, by passing a full-sized probe every day or two, attempt to excite active congestion, and thus cause the thickened tissue to melt. I do not think that either of the three methods can be so implicitly relied upon as to become exclusive.

And here we must introduce another phase of disease of the sac and nasal duct before we can attempt to lay down rules for the treatment of stricture. A neglected stillicidium and stricture leads sooner or later to progressive disease in the tear-sac and nasal duct. A comparatively limited inflammation increases and spreads until the sac is stretched by accumulated fluid, its walls altered in shape and character, and a more or less acute dacryocystitis induced. Under these circumstances something more must be done than attempts to pass the stricture—step by step with efforts to dilate the stricture must go measures for the cure of the catarrhal inflammation of the sac and duct. Much harm has been unintentionally done by those who have advised persons afflicted with incipient tear-passage disease not to have "their 'weeping eye' meddled with." Such advice was not without justification in former days, when styles were in common use, but is certainly very censurable in the present state of our knowledge.

Most of the incurable cases now met with in practice are due to neglect under the advice alluded to. Many a patient goes for years experiencing all the inconveniences and dangers of stillicidium who might have been cured in three or four days and with very little suffering. Many a patient, from the

same cause, reaches a condition in which nothing but obliteration of the sac by surgical interference remains to be done. No possible harm can result from the Bowman procedure when it is performed with adequate skill. After noting the presence or absence of catarrhal inflammation of the sac and nasal duct, we should carefully explore the nares, and ascertain from the history whether there is chronic naso-pharyngeal disease. Having ascertained these facts we are then prepared to treat the case. I commonly begin by passing a full-sized probe, and washing out the sac, and nasal duct afterward, with a solution of common salt, by means of a syringe having a



nozzle so made as to pass into or beyond the sac. In two or three days I repeat the procedure. If there is much muco-purulent discharge from the sac, I commonly wash out the sac with warm water, and then inject a solution of nitrate of silver — one or two grains to the ounce — every day or every other day until the discharge loses its purulent character, when I resume the probing. The moment I seem to gain anything by probing I commonly intermit treatment, to see if the new action induced by passing the instrument will go on to a cure. I am convinced from most careful observation that in many cases the practitioner unintentionally protracts his instrumental work in such manner as to prevent a cure. A very few probings will tell us whether the case is one most likely to be cured by this method or the use of

the knife. When convinced of the propriety of the knife, I commonly employ for incising the stricture one resembling Weber's straight knife. To facilitate the procedure I have had one made by Otto & Reynders, somewhat longer in the shank than Weber's, and with

about a quarter of an inch of the shank of soft iron, so as to allow bending, to adapt the shape to a projecting brow. I like this knife better than Stilling's for cutting a stricture, and it also serves better than any other for making Bowman's operation. It is smaller, and may be passed into a sac and applied directly to a stricture without wounding other parts. One free incision into a stricture is better than several, and I commonly make the cut in drawing out, having previously endeavored to carry the knife on through the nasal duct, feeling as I proceeded for the point of greatest obstruction. This will be found sometimes on one wall and sometimes on another; there is no rule.

I have said we must also examine the state of the nostrils. Where there is any sign of naso-pharyngeal catarrh I subject it to treatment by teaching the patient to wash out his nostrils daily with salt and water, and by doing it myself at my visits. I find it also beneficial to direct to the region of the nasal ducts in the nares an occasional application of a solution of nitrate of silver — thirty grains to the ounce — especially when the Schneiderian membrane is known to be thickened as in catarrhal inflammation. In this matter, as in many emergencies of practice, I have been greatly aided by the simple invention of my colleague and friend Dr. O. D. Pomeroy. A simple catheter recommended and used by him is of great value. It consists of a small-sized black rubber Eustachian catheter, so bent at its objective end as to throw its contents upon the mouth of a nasal duct. By placing upon the manual end a small soft-rubber capsule Dr. P.

has made a syringe which carries any desired quantity of fluid, from two or three minims of solution to ten or fifteen. For washing out the nares I commonly employ the black rubber syringe, the bent nozzle of which is terminated by a flattened and perforated bulb, introducing the instrument behind the soft

palate, and pressing the head of the patient forward at the moment of injecting so as to insure a thorough injection of the nares.

I have tried the method of treating nasal-duct stricture by lead styles, and can not recommend it except under the following conditions: 1. When you have incised a very firm stricture, a leaden style may be introduced and kept in place for a day or two; 2. In cases of diffuse inflammation of the nasal duct of a passive character, where the mucous membrane lining the duct is boggy, it may with advantage be left in for three or four days. If allowed to remain longer than this it may induce or aggravate inflammatory changes in the mucous membrane, and produce a new stricture or chronic ulceration.

I have had occasion to remove styles when others had introduced them, and found that they had by pressure produced ulceration, and thus seriously complicated the case. Moreover they are not justified by the experience of those who in former times treated stricture of the male urethra by

prolonged use of metallic catheters. Modern experience is conspicuously in favor of rapid treatment of strictures of mucous tubes by incision rather than by slow dilatation. I would remark here that the common practice of giving astringents, to be applied externally as eye-washes in cases of lachrymal disease, is not to be imitated. Medicated collyria may do good in epiphora, where conjunctival irritation induces more lachrymation than can be disposed of, but not in the cases alluded to in this paper.

It now remains to make a few practical suggestions in regard to acute inflammation and abscess of the lachrymal sac, and for the treatment of lachrymal fistula, and the operation for obliterating the lachrymal sac in incurable cases. Our first view of the case may be when the tear-sac is filled by accumulated inflammatory products, the superimposed connective tissue and skin inflamed, and all the symptoms of acute dacryocystitis present; a slight catarrhal inflammation, complicated by an obstructive stricture, having by neglect thus eventuated. The common practice in such cases is either to make an error of diagnosis, and treat the case as incipient facial erysipelas, or making a correct diagnosis, to order leeches and hot poultices over the sac. It is difficult to say which is the more injurious mistake. Both rest upon that sad tendency among us to generalize too hastily, not observing what we see; that failure to analyze the objective and subjective symptoms in a given case. It being decided that the case is one of threatened or existing abscess of the sac, waste no time on leeches or poultices; they are both bad. The first and imperative indication is to make an opening and let out the contents of the sac. If this is not done ulcerative perforation is almost sure to ensue, and with it such changes in the sac-wall as render the restoration of the integrity of the lachrymal passage difficult if not impossible. If the matter is already showing itself as a yellow or bloody mark beneath the cuticle, your course is simple:

cut through the skin at the most depending part of the fluctuating tumor. If you can not see the matter through the skin do not make this external opening; it is unnecessary, inelegant, and may lead to fistula, and it should never be made if it can be avoided.

You have the choice of two other methods: either to slit up the lower canaliculus from punctum to sac, and thus evacuate the matter; or, if that be prevented by excessive swelling, to make an incision behind the commissure of the eyelids between it and the caruncle, where you can reach the cavity of the sac with great ease, and do nothing to embarrass you in the after-treatment of the case. For this latter purpose I commonly take a small straight bistoury or Beer's knife, and, standing behind the patient so as to control his head, open the lids as much as their swollen condition will allow, and then, passing my knife so that its flat grazes the eyeball, pass it into the cavity of the tear-sac in the depression existing between the commissure of the lids and the caruncle. This point is rendered easier of access by the swelling of the surcharged sac, which causes the anterior wall of the same to bulge much in advance of its normal plane. You then may empty the sac without difficulty and avoid an external wound; nor does your procedure injure the canaliculi, or damage any appendage of the eye, or interfere with after-treatment. After the evacuation of matter you may recommend hot fomentations for an hour or so, and cool or cold-water dressings afterward, depending upon the grade of inflammation and the sensibilities of your patient. In old subjects the subsidence of the swelling of the connective tissue may be hastened by gentle pressure, with dry lint and a single turn of flannel bandage. In cases of lachrymal disease in young subjects I would especially urge a very early slitting of the inferior canaliculus, as it will permit a free outflow of secretion from the sac toward the eye, and diminish the danger of ulcerative disease of the sac-lining and caries of bone. I always make

this Bowman opening even though I may not proceed further with the treatment, considering it the best guarantee against abscess. It will be necessary to give the young subject an anæsthetic for the operation, although commonly in the case of adults such is not needed in operations upon lachrymal diseases, except in the case of obliteration of the sac.

The treatment of fistula lachrymalis depends upon the state of the sac and nasal duct. If the fistula is due to a neglected but permeable stricture, you treat the stricture *secundum artem*, expecting when it is cured to see the fistula heal. If due to impassable and therefore incurable stricture, or complicated by chronic suppurative inflammation and ulceration of the sac, you must resort to the procedure reserved for the close of this communication—viz., destruction of the lachrymal sac.

To destroy the sac you must gain access to its cavity, and apply either the actual or potential cautery throughout its entire extent, and as far down the nasal duct as possible. Commonly for this purpose a free incision is made externally, extending from beneath the brow downward into the lachrymal sac, cutting the tendon of the tensor tarsi muscle, and so on over the maxillary edge of the orbit. This cut is about an inch and a half in length, and is attended by a good deal of bleeding, and usually leaves a more or less ugly scar—a scar always greater when the destruction of the sac is most complete.

I prefer and have for years employed the following procedure: with a Weber's knife I slit up both canaliculi from the puncta to the lachrymal sac. I then cut the sac-wall intervening between the two canals. This carries me behind the tendon of the tensor tarsi, leaving it intact. I then with a strong small scalpel make a sweeping cut upward, and then downward, so as to split the wall of the sac

that looks toward the eye, until I can introduce a retractor into the cavity of the sac. When I can do so I draw the anterior wall of the sac with the overlying palpebral commissure toward the side of the nose, and thus reveal the sac cavity. I then apply either fuming nitric acid or potassa fusa to the sac lining and the canaliculi until I feel sure that no mucous lining is left. I then wash out carefully, and allow the anterior sac-wall and palpebral commissure to fall back into place, when the sloughing and inflammatory processes destroy both sac and canaliculi; and no one could tell from any external or conspicuous signs that an operation for the destruction of the sac had been done.

I think this method might be rendered still more acceptable by the use of some one of the elegant galvano-cauteries. I have frequently done this operation, and never had any ugly inflammation or unpleasant result. It is a much more simple procedure than it may seem to be. When therefore we have a case of impermeable stricture or incurable inflammation of the lachrymal sac or nasal duct, especially where there is ulceration or extensive disorganization of the parts forming the passage, we are compelled to destroy the sac. The presence of caries of the bone does not forbid the operation, but only retards the recovery. In some instances of chronic lachrymal disease we may have to resort to general medication suited to the diathesis; but as a rule the treatment is mostly local, with such attention to hygienic measures as will diminish the chances of annoying catarrhal complications.

I would here venture the remark that some fail to get satisfactory results in the treatment of lachrymal diseases because they are too impatient. They are unwilling apparently to spend the time necessary to acquire dexterity in the use of instruments. They fall into the habit of rigidly

following a favorite method instead of studying the delicate shades of difference in cases so as to adapt suitable modifications of treatment. They encounter obstinate cases, incurable cases, obstructive patients, with obstinate mental or moral strictures, and are often too ready to reject impatiently an approved method for some illusive novelty.

In conclusion I would lay especial emphasis upon the necessity of exploring the nares in all cases of lachrymal disease, and treating them by cleansing or alterative solutions whenever there is anything in the objective or subjective symptoms which would lead us to suspect disease of the Schneiderian membrane.

NEW YORK, DECEMBER.

EXSECTION OF THE HEAD OF THE HUMERUS FOR "CHRONIC RHEUMATIC ARTHRITIS."

BY GEO. C. BLACKMAN, M. D.,

Professor of Surgery in the Medical College of Ohio, Cincinnati.

I am indebted to Dr. F. Anderson, one of the resident physicians of the Cincinnati Hospital, for the report of the following case, in which I had occasion to perform exsection of the head of the humerus under circumstances perhaps unique; at least I have been unable to find the report of a similar case. Mr. Robert Adams, of Dublin, in his most excellent treatise "On Rheumatic Gout, or Chronic Rheumatic Arthritis," etc., London, 1857, acknowledges the difficulty of proposing any unobjectionable name for the disease under consideration, the remarkable character of which is that it seldom goes on to suppuration, "as other inflamma-

tory and subinflammatory affections of the different articular textures do." At page 161 Mr. A. refers to certain instances in which the head of the humerus, under the influence of the changes induced by it in the structures of the shoulder-joint, suffers displacement directly downward on the axillary margin of the scapula, as in our own case. Instead of the normal globular form of the head of the humerus, we found it flattened and its axis changed, with the other morbid appearances so well described by Mr. Adams.

Patrick Hays, an Irishman, aged fifty years, was admitted into the surgical ward of the Cincinnati Hospital, March 31, 1870. Fifteen years ago he lost the index-finger, and all the terminal phalanges of the left hand, from the effects of frost. Two years subsequently he sustained a compound fracture of the right arm, necessitating amputation at the lower third. He had never contracted a venereal disease. Four months previous to admission the anterior portion of the thorax was thickly covered with an eczematous eruption, and a large tumor presented itself in the left mammary region, from which came a free purulent discharge.

On admission there was very limited use of the left arm; the head of the humerus could be thrown easily from the cavity by passive motion, giving a crackling sensation; a chain of enlarged lymphatic glands was traced down the axillary region. The tumor was the size of a blacksmith's fist. The spontaneous opening was enlarged, and a large amount of purulent matter evacuated. The eruption gradually yielded to the administration of liq. potass arsenit., and the general condition of the patient was much improved by large doses of syrup of iodide of iron and manganese.

On the 24th day of May an incision was made from a point over the left acromion, extending downward three and one half inches; and when the capsular ligament was penetrated a yellow thin fluid escaped, and a fistulous tract connecting the cavity of the joint with the pectoral abscess was

disclosed. Through this incision the dislocated head of the humerus was turned out, and two inches of porous, softened bone removed with the saw. A solution of five grains of carbolic acid and one ounce of water was injected down the fistula, and a compress adjusted. Quinine and whisky, with a nourishing diet, was ordered. By the 14th of June the tumor had disappeared, and the discharge of the purulent matter from the lower opening was slight. Early in September the incision over the joint was completely closed, and he was transferred to the infirmary in excellent health.

CINCINNATI, DECEMBER.

REMARKS ON DEGENERATIVE DISEASE, OR ATROPHY, OF THE GASTRIC TUBULES.

BY AUSTIN FLINT, M. D.,

Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College.

Editors American Practitioner:

I have borne in mind my promise, made some months since, to contribute an article for the American Practitioner at about this date. In the fulfillment of this promise I propose to submit some remarks on degenerative disease, or atrophy, of the gastric tubules. I am led to select this subject from having read an article by Samuel Fenwick, M. D., in the London Lancet. The article appears in the number of that journal issued July 16, 1870; but it has not fallen under my notice until the date of my writing (December 3, 1870). In that article Dr. Fenwick reports a case in which the diagnosis of atrophy of the gastric tubules was made from the history and symptoms. The autopsy confirmed the cor-

rectness of the diagnosis. The account of the case is as follows:

"A gentleman, about forty-five years of age, consulted me in February last. He complained of great weakness, and inability for mental or bodily exertion. Occasionally he had pain in the back and a sensation of numbness in the legs; but there was no loss of feeling or appearance of paralysis. He was troubled with palpitation and breathlessness on exertion. He did not seem to be much emaciated, but his face was of the pale yellowish color so often seen in persons affected with malignant disease; and the lips, tongue, and throat were exceedingly bloodless. He had neither cough nor expectoration; the appetite was very bad; he suffered from flatulence, and occasionally from bilious vomitings, and the bowels were much confined; the pulse was exceedingly small and feeble. The complaint had come on so gradually that he could scarcely fix the exact time of its commencement; but he had been ailing for at least eighteen months. Previous to this date he had enjoyed good health; he had never suffered from any loss of blood, nor from ague or diarrhea. On careful examination no darkness of the skin could be discovered; no disease of the heart or lungs could be detected by auscultation and percussion; the liver and spleen were normal in size, shape, and position; the thyroid and lymphatic glands were not enlarged; the stomach was not dilated, and no tumor could be found in any part of the body. The urine was clear, acid, and free from albumen and sugar. A drop of blood obtained from a prick of the finger, when examined by the microscope, showed no increase, but rather a deficiency, in the number of white corpuscles. I prescribed steel and quinine, with a small dose of cod-liver oil; and recommended a nutritious diet, with a moderate allowance of wine."

Subsequently vomiting was a prominent and persistent symptom. The pulse became extremely feeble. There was loss of appetite and flatulency. He gradually became more and more feeble and anæmic, and after slight attacks of delirium died from exhaustion. The grounds for the diagnosis are stated in the following quotation:

"It was evident that all the symptoms from which the patient suffered arose from anæmia. But as he had been affected with

no disease — such as ague, dysentery, or hemorrhage — capable of directly producing this condition, and as there was no evidence of disease of any of the viscera, it could only be supposed that there was some imperfection in the blood-making organs, or in those connected with absorption. The absence of emaciation was sufficient to prove that the powers of absorption, and of the digestion of fat and starch, were not impaired. We had therefore only to examine the condition of the organs whose office it is to digest and prepare the albuminous materials of the food—namely, the stomach and ductless glands. There was no evidence of any affection of the spleen, thyroid, thymus, or lymphatic gland; and the absence of any dark discoloration of the skin seemed to negative the supposition that the supra-renal capsules were diseased. I therefore concluded that the stomach must be the organ in fault; and as atrophy is its only morbid condition which is not accompanied by characteristic local symptoms, I diagnosed atrophy of the gland-structure as the only disease present in the case."

The examination after death showed no important changes elsewhere than in the stomach. Here the appearances were as follows:

"The stomach was empty, excepting a small quantity of gas, and its surface showed no signs of post-mortem digestion. When placed beneath the microscope, the pits on the surface of the gastric mucous membrane were seen to be well defined, and were rather larger than usual. The whole of the glandular structure of the organ was in a state of atrophy; in no part could I succeed in procuring a section of normal tissue. In the pyloric and middle regions the secreting tubes seemed to be converted into a mass of connective tissue; and it was only near the cardiac end that a trace of gland-structure could be observed. In this situation the gastric tubes were represented by scattered flesh-like bodies, filled with granular matter and fatty epithelial cells. In other places the ends of the tubes were expanded into the form of cysts. Each of these was surrounded by fibers, and was lined internally by a layer of cells, the contents consisting of fat-cells and granular matter."*

The accuracy of the observation of these appearances was confirmed by Dr. Handfield Jones.

*The morbid appearances are illustrated by three figures in Dr. Fenwick's article.

An infusion of the gastric mucous membrane, mixed with dilute hydrochloric acid, will usually, as Dr. Fenwick states, dissolve the white of egg and other albuminous substances. The experiment was made with an infusion of the mucous membrane in this case, and almost no effect was produced. Quoting the writer's words, "this experiment therefore confirmed the conclusion, derived from microscopical examination, that the gland-structure of the stomach had been so seriously diseased that it could not have been capable of performing its functions during life."

Dr. Fenwick expresses the belief that in cases of "idiopathic anæmia," described by Dr. Addison, the fatal lesions are in the gastric tubules.

The article of Dr. Fenwick is to me exceedingly interesting. Since I became acquainted with the researches of Handfield Jones, published in the Medico-Chirurgical Transactions, Vol. XXXVI. (London, 1854), I have entertained a strong conviction that morbid changes taking place in the gastric and intestinal tubules would be proven to enter frequently and largely into cases of disease characterized by anorexia, impaired digestion, impoverishment of the blood, and defective nutrition. For many years my attention has from time to time been directed to cases analogous to the case reported by Dr. Fenwick. I have often been disposed to report cases of this kind which have fallen under my observation. In some of these cases I have stated as the probable diagnosis degenerative lesions of the gastric tubules. It has, however, never been in my power to verify this diagnosis by microscopical examinations after death. I mean that in none of the cases to which I refer were the stomach and intestines subjected to examination with the microscope. I have repeatedly suggested to some of my friends who are occupied with microscopical researches to devote attention to the study of the glands which secrete the

gastric and the intestinal juice. My friend Dr. Janeway, one of the curators of the Bellevue Hospital, distinguished for his zeal and ability in morbid anatomy, will, if this communication should meet his eye, recollect my urging him to develop knowledge and reap distinction by studying the lesions of these glands in connection with the ante-mortem histories. Reasoning from analogy, it has seemed to me highly improbable that these glands should be exempt from the morbid changes which are known to occur in other glandular structures. This view I have presented in a brief section devoted to the subject in my work on Practice; and for more than ten years I have never failed to enlarge upon the subject in didactic teaching. I do not, of course, presume that it is of interest or importance for the profession to know how long and how much my thoughts have had this direction; but I am led to write thus in order that it may be deemed not a sudden but a well-matured conviction when I express a confident expectation of lesions of the gastric and intestinal glands being found hereafter to be of not less importance in pathology and clinical medicine than the renal lesions, our knowledge of which was opened up by the researches of Bright.

Are not the facts which are set forth in Dr. Fenwick's article sufficient now to warrant the nosological recognition of degeneration of the gastric tubules as a distinct affection; and as such is it not, with our present knowledge, an affection which may with much certainty be diagnosticated? Is it not probable that it may coëxist with various affections as a complication of great importance in relation to the interpretation of symptomatic phenomena and to prognosis? I do not propose to discuss these questions in this communication; but I submit them for the reflection of the readers of the Practitioner, with an intention of giving a further account of my own thoughts, together with my clinical observations, at some future time.

As this is an epistolary communication, may I ask you and the readers of your journal to excuse an apparent egotism in what has been written; and also in subjoining an extract from a clinical lecture on anæmia which I delivered at the Long Island College Hospital, and which was published in the American Medical Times, number for September, 1860? I have italicised several sentences to which I should like particularly to direct the attention of the reader.

"Before proceeding to speak of the treatment of anæmia, I wish to call attention to a form in which this condition is met with, differing from the ordinary form in this important respect: it proceeds steadily and surely to a fatal issue. I refer to the form which Addison distinguishes as 'idiopathic anæmia.' He thus distinguishes it because the anæmia is developed and continues without any adequate cause or causes being apparent. It is in these cases of anæmia that Addison was led to observe disease of the supra-renal capsules. The bronzed hue of the skin occurs in a certain proportion only of these cases. It is with the idiopathic fatal anæmia, not the coloration of the skin only, that Addison supposes the disease of the supra-renal capsules to be connected. As there is, I believe, generally an incorrect impression on this point, I beg leave to read the following quotation from Addison's paper:

"'For a long period I have, from time to time, met with a very remarkable form of general anæmia, occurring without any discoverable cause whatever; cases in which there had been no previous loss of blood, no exhausting diarrhea, no chlorosis, no purpura, no renal affection, splenic miasmata, glandular strumous or malignant disease. . . . . It was while seeking in vain to throw some additional light on this form of anæmia that I stumbled on the curious facts which it is my more immediate object just now to make known to the profession.'*

"I do not propose to discuss in this connection the question as to the existence of a pathological relation between disease

* These quotations are from a paper by Dr. Wilks in Guy's Hospital Reports, 3d series, vol. v., 1859.

of the supra-renal capsules and fatal anæmia, with or without bronzing of the skin. I will simply say I suppose it to have been shown that if there be a relation it is only occasional, not constant.

"I had myself a patient last winter who died with 'idiopathic anæmia,' together with an almost universal and a strongly-marked bronzing of the surface; and after death there was found to be no appreciable degeneration of structure in the supra-renal capsules. But not to be diverted from the point to which I wish to direct your attention, cases such as Addison refers to must have fallen under the observation of most clinical observers. I met with two or three in my hospital wards in New Orleans during the winter of 1858–9, and again during the last winter. The patients entered with marked anæmia, and greatly prostrated. Interrogation of the important organs of the body showed no serious disease. Loss of appetite was a prominent symptom, and this ended in complete anorexia. Diarrhea was more or less prominent before death; but this was not due to intestinal lesions, as was shown by examinations after death. Death took place by slow asthenia or inanition. No disease sufficient to cause death was discovered post mortem. Notwithstanding Addison's researches, these cases must be considered not less inexplicable now than before he stumbled on lesions in the supra-renal capsules. Even were these constant they would hardly shed much light on the occurrence of fatal anæmia. *I have not the presumption to offer an explanation of these cases; but I have an idea, which I do not hesitate to throw out because I can do no more, and I give it only for what it is worth. To follow it out by researches, which will show it to be valuable or worthless, will probably not be within my power. I suspect that in these cases there exists degenerative disease of the glandular tubules of the stomach.* I am led to this suspicion somewhat as a physician is said once to have arrived at the conclusion that the pancreas must be

diseased by convincing himself that all the other organs in the body were sound; and this was the only organ which he could not satisfactorily interrogate! Here is at all events a field of research which has as yet been hardly more than explored.

"Dr. Handfield Jones is the only one within my knowledge who has made degenerative disease of the gastric tubules the subject of any investigation. He published some years ago the results of the examination, by means of the microscope, of one hundred stomachs. In seventy-seven of this number there was found more or less atrophy of the tubules. In fourteen cases the degeneration was considerable. We can as readily understand that these important organs should undergo degenerative disease not rendered distinctly apparent to the naked eye as that this should be true of the convoluted tubes of the kidneys. *It is perhaps the lot of some one to bring the microscope to bear upon investigations here with as much effect as Dr. George Johnson has done with respect to the renal organs.* Of the importance of the stomach glands we can form an estimate when we consider that their business is to furnish from fifteen to thirty pounds of gastric juice during the twenty-four hours. Nor is it difficult to see how fatal anæmia must follow an amount of degenerative disease reducing the amount of gastric juice so far that the assimilation of food is rendered wholly inadequate to the wants of the body. *I shall be ready to claim the merit of this idea when the difficult and laborious researches of some one have shown it to be correct.*"

NEW YORK, DECEMBER.

PNEUMONIA.

BY A. P. MERRILL, M. D.

Modern controversies in regard to the pathology and treatment of pneumonia have failed to satisfy the profession upon these subjects, and the discrepancy of views is scarcely less at the present time than at any former period. The idea of the existence of local inflammation in the thoracic viscera is indeed paramount; but whether it be symptomatic or idiopathic, whether principally parenchymatous or membranous, and whether accompanied by an elevated or a depressed condition of the nerve-power, have not been determined; nor have the origin and character of the primary cause been agreed upon. Of course the nomenclature remains unsettled also, and we continue to meet with descriptions of the same disease under different designations, having reference to the organs and tissues principally implicated. The treatment has been changed to suit the various theories from time to time prevailing, from the most heroic form of the antiphlogistic to the excitant, contra-stimulant, expectant, and homeopathic, with a frightful amount of fatality, direct and indirect, immediate and remote, in connection with all the plans adopted. The recent introduction of the adjective typhoid, rendered so formidable in French pathology, has caused much trepidation among physicians, and led to important innovations in practice; but whether these changes have been improvements may well be doubted when we find fatal congestion, effusion, abscess, and gangrene, with chronic bronchitis and ulceration of the mucous tissues, not less common than before. There is much reason to believe indeed that pneumonia is not more successfully treated now

than formerly. Certainly there is such an amount of mortality from the disease, especially in large cities, as to justify the suspicion of the prevalence of a mistaken pathology.

In the investigation of this matter it must be considered that idiopathic inflammation of the vital organs is a rare disease. The stomach, so liable to abuse from indiscretions in eating and drinking, rarely ever takes on inflammation except as a lesion of fever. Physicians of large experience have met with only a few exceptions, and these have been mostly dependent upon the ingestion of poisons, the alcoholic poison being the most common, and upon uterine irritations. The same is true of the bowels, liver, kidneys, and brain. In a great majority of cases inflammation of any one of these organs is not an idiopathic affection, but a febrile lesion coming on only after the fever has continued through several successive paroxysms. So insidious are the attacks of fever leading to these local developments that no one is able to discover in their preliminary stage, from any peculiarity in the disease itself, what will be its prominent local lesion. Even cases of small-pox are liable to this difficulty in diagnosis, its peculiar eruption being the only certain test of its character. Before this makes its appearance, and during several days of preliminary disorder, we meet only with the phenomena of fever, which do not differ materially from those of fever originating from other causes than small-pox contagion. No physician ventures to make a positive diagnosis until the eruption appears upon the skin. The same is substantially true also of measles and scarlatina.

Where the yellow fever prevails, the disease in its inceptive stage is of a mild character, and calculated to deceive the most wary and skillful. For several days it is so like other forms of fever that diagnosis is impracticable. The patient suffers with pain in the head threatening cerebritis, in the spine and the limbs, and almost every part of the body excepting the one organ destined in due time to bear the

burden of disease. Gastritis is the characteristic lesion; and when the symptoms of this disease appear there is to the experienced no further difficulty in the diagnosis. The stomach and its ailments claim almost undivided attention; and so it is of enteric and hepatic fever. It is the local lesion alone which gives character and name to the disease, and the evidences of this are rarely among its early manifestations. Previously to its development there can be no good reason for treating the disease in reference to its actual character, except such as may be derived from a knowledge of the epidemic influences at the time prevailing. Of the nature of these nothing is known; but it is not to be doubted that when they direct morbid action to a particular organ, that organ must be the principal sufferer in all cases.

Now I hold that pneumonia is not an exception to these general rules, and that it occurs independently of the febrile condition, with scarcely greater frequency than the other local inflammations referred to. Common colds, so often the precursors of pneumonia, are equally the prodromes of other endemic and epidemic fevers. Yellow fever is especially liable to be initiated in this insidious form, encouraging a feeling of security until it is too late for successful treatment. In the South, and especially among the negro race, epidemic pneumonia is often more rapid in its course after the manifestation of local symptoms than other forms of fever; but in general the disease comes on slowly, and is in its initiatory stage more amenable to treatment and less fatal than in colder climates; but this depends upon the adoption of remedial measures at the proper time.

There is nothing peculiar in the preliminary stage of pneumonic fever. It begins with a chill, which is followed by febrile reäction, and sometimes a sweating stage, constituting a paroxysm. In general this is in the beginning of so mild a character as scarcely to attract attention; but after recurring several times, with a progressive increase in

severity, it develops pneumonic inflammation as its proper local lesion. There is, of course, no more propriety in considering this a case of idiopathic pneumonitis, pleuritis, or bronchitis, than there is in calling yellow fever gastritis or bilious fever hepatitis. The pneumonic or intrathoracic inflammation is clearly a secondary affection, which never appears without the preliminary fever, except produced by local causes, such as the inhalation of acrid vapors.

Many old authors hold to this view of secondary effects; and among those of modern times I may mention the names of Good, Broussais, Watson, Condie, Wood, and Bell. The last of these is in full accordance with all the rest when he describes the preliminary stage of pneumonia thus: "To-day the patient complains of gastric symptoms; to-morrow of a tendency to cerebral congestion; subsequently of rheumatic pains, until finally the pneumonia discloses itself." Every physician recognizes this as a just description of the initiatory stage of the disease, which may continue several days, and even for weeks, without a single indication that the thoracic viscera are to bear the burden of local disease. When we contrast these preliminary symptoms with those of yellow fever in the same stage, it is remarkable that gastric disturbance appears in the former and pulmonary congestion in the latter; thus increasing the difficulty in diagnosis and prognosis in both diseases at any time anterior to the establishment of the characteristic local lesion.

The above description of Dr. Bell is not better suited to pneumonic than to gastric, hepatic, or enteric fever. In the preliminary stage of all the only clue we have to the ultimate character of the disease is in our knowledge of the prevailing epidemic influence. The same is true also of the exanthematous fevers propagated by contagion. We must have some knowledge of exposure to the reputed cause to enable us to give even a plausible conjecture as to the character of the disease at any time before the eruption shows itself.

In regard to treatment, happily this discrimination is not necessary, because the remedial measures for uncomplicated fever are substantially the same, whatever may be the character of the prevailing epidemic influences. It would be most unfortunate were it otherwise, as we are unable to discover in many cases what these influences are and whence they are derived.

In this as in all idiopathic fevers it is in the preliminary stage, and before the distinctive localizations are established, that curative measures are most effective. There are then no great local irritations to contend with; and, so far as can be observed, our patient suffers from fever alone, affecting every part of the organism, and subject to diurnal intermission or remission, under an inexorable and inexplicable law. A chill is the invariable initiatory symptom, dependent upon some morbid innervation, causing temporary congestion in certain organs, and culminating in reäction or in death. In the former event the hot or febrile stage is inaugurated; in the latter the common report is "died of congestive chill;" a report which generally preserves the reputation of the attending physician from any serious injury. The object of all treatment in this stage of chill ever has been to bring about an early reäction, the violence and duration of which are apt to correspond with the violence and duration of the chill. The whole class of neurotic remedies, and many of the class of excitants, internal and external, have been used for this purpose, and with varying results; but the most efficient of all the old remedies was blood-letting, by a skillful use of which the congestion of chill was readily relieved, and the reäction or febrile stage inaugurated. In unskilled hands much mischief was formerly done with this remedy no doubt, as there is with every active remedy; but in ancient and almost universal practice, besides immediate relief, blood-letting gave an advantage in the subsequent treatment of great importance, rendering cases amenable to remedies which other-

wise would not have been. The same is true of most if not all the forms of febrile epidemics which have prevailed in ancient and modern times. The black death and sweating sickness, the plague and small-pox, the cholera and yellow fever, which have been so fatal to mankind, and the cattle-plague and bovine fevers so destructive to brutes, all attest the value and importance of blood-letting in the treatment of their early stages.

The subsidence of the febrile paroxysm without the extinguishment of life opens the way for the application of antiperiodic remedies, by means of which, before the local lesions are formed, a return of the paroxysm may be prevented and the patient cured. This is sometimes called the abortive treatment; and the physician who applies it successfully deserves high commendation. But there is also an abortive treatment by chloroform internally which, under favorable conditions, arrests the disease in the cold stage without reäction; and when this is done there is in general no returning paroxysm. To do this effectually it is necessary that the chloroform be given in the beginning of the chill, and in such dose as will produce sleep, which is the proper sign of its full physiologic influence; and the sleep thus produced must be prolonged by removing all causes of disturbance. Notwithstanding the great hypnotic power of chloroform in febrile congestion the patient is easily awakened; but while the sleep continues the congestion and chill are relieved, the circulation and heat equalized, and should the sleep continue for several hours the patient wakes cured of his disease. In children congestive chill is frequently productive of convulsions, which are relieved with equal certainty by chloroform administered by the stomach or rectum in hypnotic doses.

But in a great majority there is no opportunity, even were the skill provided, for a successful application of abortive treatment. After several successive paroxysms of fever, but

without special signs of thoracic disorder, as described by Dr. Bell and others, pneumonia in due time becomes developed, while the periodic character of the disease remains, requiring not less imperatively than before the application of antiperiodic treatment. Of this treatment, now so well understood, I need not speak in detail; but it may be observed that it is from the periodic recurrence of congestive chill, however masked and obscure, that we have most to fear. It is at these periods of chill indeed that our patients suffer most from pulmonary congestion, and which sometimes results unexpectedly in sudden death. Chloroform internally, now happily the efficient substitute for blood-letting, still affords, as in all cases of congestion, the highest hope of relief. Besides this remedy thus properly timed, the antiperiodics, mercurials, febrifuges, and expectorants, with a moderate use of opium to calm nervous irritation, constitute the principal treatment.

When pneumonia prevails epidemically there is always reason to apprehend that the morbid exaltation of vitality in the early stages may be somewhat suddenly followed by a progressive stage of collapse, when all treatment having a tendency to depress nervous energy becomes inappropriate. Quininism, so important for its antiperiodic effect, and often so useful in subduing morbid excitement, may become dangerous in collapse by its depressing influences, and therefore quinine should be given only in small doses during this stage. To compensate for this reduction the arsenious acid may be given in conjunction with quinine, or substituted for it; and this is sometimes desirable on account of the tonic power of the arsenic, and also in consideration of certain specific influences over the respiratory function.

Nutritious food becomes important in this stage of depression; but of course the patient is only benefited to the extent of perfect digestion. Sad mistakes are sometimes made by urging food upon the patient which not only can

not be digested, but which must become a source of irritation and oppression, and cause a positive deterioration in digestive power. Alcoholic potations may also be allowable; but to make them useful care must be taken in regard to the quantity consumed, and that they be administered only when the stomach is supplied with suitable food. With these precautions alcohol may aid digestion; but the indiscriminate and almost unlimited use of it so often advised should be ranked among the gravest errors in modern practice. Iron and arsenious acid are more suitable tonics, and either one or both may be given without risk of ulterior injury. The former is especially useful when convalescence is accompanied by a tendency to anasarca, and the latter to overcome a lingering proclivity to periodic disease. Alcohol not only fails to accomplish either of these objects, but is favorable to the increase of both these concomitants of tedious convalescence.

The remarkable power of tartar-emetic in subduing febrile exacerbations, and all morbid exaltations of the vital forces, especially those in connection with pulmonary disease, renders it too valuable to be ignored in the treatment of pneumonia. Assisted by the nitrate of potassa, and by aconite in suitable doses, and sometimes by cold-water enemata, this remedy exercises a degree of febrifuge-power not otherwise easily secured. Digitalis and veratrum viride may operate more promptly in reducing frequency of pulse; but tartar-emetic does more than this, equalizing the circulation, relieving congestion, exciting healthy secretion, and abating nervous excitability.

I can not trespass upon the Practitioner by a further discussion of the subject, but a few words may be added in reference to means of prevention. It has been well proved that the remedies for periodicity are also preventives of this mysterious morbid movement. The salts of quinia and the bark in substance have been mostly used for this purpose; but these have been found more or less injurious to nervous

tone and to the process of digestion. The arsenious acid is therefore in general to be preferred, and used daily to ward off epidemic or endemic influences. The evidences of success are necessarily of a negative character; but when I consider the frequent exemption of certain families in southern cities, and of negroes upon large plantations, subjected to the use of such preventive measures in seasons of much sickness, and also the triumphs of these measures attained by English and American naval vessels cruising in the West Indies and on the coast of Africa, I can scarcely doubt the efficacy of quinine and arsenic, in conjunction with woolen clothing, in the prevention of febrile diseases.

MEMPHIS, TENN.

MANILA PAPER AS A MATERIAL FOR SPLINTS AND THE IMMOVABLE APPARATUS.

BY R. O. COWLING, M. D.,
Demonstrator of Anatomy in the University of Louisville.

An apology seems necessary for introducing a new material for splints. The list is crowded with representatives from every kingdom of nature, and the bones themselves have been used for this purpose; as, for example, by Baron Larrey, in the Egyptian campaign. The material, however, now offered has so many excellences that it is believed a trial of it will establish its superiority to all others in very many cases. It is conveniently and cheaply obtained, easily adapted, and almost universally applicable; and, what must have been overlooked by the profession, when starched possesses a firmness inferior only to metal or plaster; while its

elasticity gives it an immense advantage over the last-named substance when used for the immovable apparatus. In fractures of the femur, wherever situated, when using the immovable apparatus, I have had difficulty in confining the hip-joint. When the bone has been broken high up the difficulty of supporting the upper fragment is added. In these cases the ordinary spica is objectionable on several accounts. If a sufficient number of layers of the roller are used to give it a proper firmness, the accumulation of folds in the perinæum is a source of discomfort; while the abdominal turns, in addition to this, soon become loosened, and interfere with the security of the hip. The pasteboard splints, which it has been recommended to carry higher up to reënforce the spica, are not readily molded. It was in this connection that I hit upon the use of paper. In the experiments first made on a wooden model ordinary newspaper was the variety used; but, while this made an admirable mold, too many layers were required to give it firmness.

FIG. 1

Manila paper was then substituted, and is the variety I have since used, not only to make the spica, but the entire apparatus. This paper, made from Manila hemp, sustains a great degree of tension, even when wet with the stiffening material. It is the kind used for cartridges, paper bags, etc., and comes in various thicknesses. The thicker varieties are best adapted for the purposes now considered. In its absence any thick paper may be conveniently substituted. The method of applying

it in the immovable apparatus is illustrated in Fig. 1. The paper is cut into slips from half an inch to two inches in breadth, and of a sufficient length. The limb is enveloped in cotton, and the paper is starched and put on in circular folds, as with the many-tailed bandage. Longitudinal and circular layers are then added. It will be found more convenient to confine the cotton with a dry roller. While the application in this way is far more tedious, the apparatus may afterward be more easily divided. The narrower slips are applied over the foot, and the broader only where the irregularities of the limb are slight; otherwise the paper will not adapt itself well. On reaching the crotch, cover in the hip with oblique turns, passing alternately from either side. By this means it, as well as the buttock, may be enveloped without an accumulation of material at any one point. Three layers, representing six thicknesses of paper—as each slip should overlap its neighbor one half—will give sufficient firmness, except over the seat of fracture and the contiguous joints. These points should be reënforced by additional layers. Lastly, a spica bandage should be thrown around the hip until the apparatus dries; afterward, and for greater security, a single band may be left to confine it to the opposite hip. Such is the use of the paper in the immovable apparatus.

It remains to be seen wherein it is superior to that made by rollers and splints. If beauty be a recommendation, it certainly possesses that. Its surface is smooth, and the exact contour of the limb is preserved. It is not easily soiled, and when divided its edges remain for weeks or months without fraying. Its firmness far exceeds one made with equal thickness of cloth and splints. It is this point we believe that has been overlooked by the profession. Six or eight thicknesses of the paper give such solidity that seemingly a nut could be cracked over the seat of fracture without disturbance. The models we have made could be bent only with extreme difficulty. It is the old principle of

the arch and the tube. No such firmness can be obtained from the cloth alone without the use of splints. Where lightness then is sought it has the advantage. Its cost is almost nothing; a dime's worth of paper will do for a lower extremity of ordinary size. It allows of earlier and better division. Put on with the egg and flour mixture, I have found the paper sufficiently firm in four hours to be easily cut, though it does not attain its full stiffness for a day or two. When ordinary paste is used the dressing dries more slowly. Fenestra of any size may be cleanly cut, and will retain their shape for months.

FIG. 2.

If the apparatus be divided, as indicated in Fig. 2, both before and behind, taking the precaution to break joints of apparatus over the seat of fracture, an objection which exists in the minds of many surgeons to the starched apparatus is obviated. The two splints thus made may be removed and reäpplied without disturbing the limb. Mr. Tuffnell recommends splints for the leg made by longitudinal layers of cloth lined with lint, and praises their accuracy and lightness. I doubt, however, if these splints could be used on the thigh and hip unless reënforced by pasteboard or some other material.

I have found the paper exceedingly useful in the treatment of sprained ankle. After combating the acute symptoms by position, etc., I apply the roller. When the swelling is reduced I put on the paper boot, extending it a short distance above the joint. A boot of this description can easily be made which fits accurately and insures perfect rest, while its lightness and

appearance recommend it to the patient; a point which will be appreciated by those who have seen how loath patients with this injury are to submit to the necessary restraint.

Fig. 3.

By splitting the boot in front, as is shown in Fig. 3, it can be put on and off in a moment by the patient himself. In the several instances in which I have used the boot the results have been very gratifying. In one case a young gentleman fell a distance of twenty-five feet squarely upon his right heel. The concussion of the joint was extreme. On the fifth day the paper boot, well lined with cotton, was put on. The comfort was immediate. He took at once to crutches and resumed his business. He wore the apparatus for about three weeks, and during that time he always felt uneasy when he left it off.

My actual experience with paper dressings has been confined to the lower extremity. I have made models on other portions of the body which will induce me to try it elsewhere when an occasion arises; for instance, as a shoulder cap for fractures in the upper portion of the humerus. Fig. 4 is from a model taken from a healthy arm. A piece of thick canton-flannel was first wetted and molded to the shoulder. The strips were then put on in circular, longitudinal, and oblique turns, as seen in the figure. A spica was then carried over the paper, and kept there for fifteen minutes, when the mold was found to be of sufficient firmness to retain its shape. It was now dried before the fire, trimmed, and proved to be almost as hard as wood, and admitted of most accurate reädjustment. I have found gutta-percha more difficult to mold, while neither pasteboard nor leather can be applied with anything like the same accuracy. I believe that in fractures of the surgical

neck of the humerus, by adopting the broad flanges shown in the figure, covering well the pectoral muscle in front and scapula behind, the muscles producing the displacement can be in a great measure controlled. I also made an excellent mold for the lower jaw, which, along with other experiments, convinced me that the use of paper might be extended to almost any part of the body where molds are called for, as for spinal support, angular splints at the elbow, and bracketed splints for compound fractures.

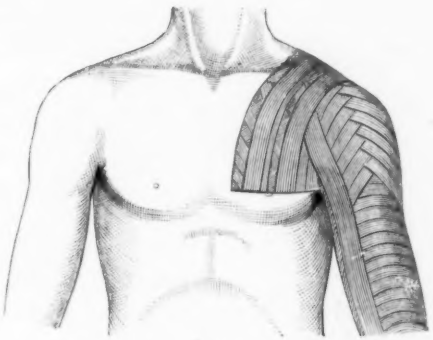


FIG. 4.

Since I begun using the paper my attention has been called to its previous employment by others. A physician in this city reports the use of newspaper splints by a surgeon in the Confederate army. As described by him, the method consisted in soaking the folded newspapers in starch, applying to the sides of the limb, and compressing with a bandage. This, while perhaps superior in some respects to the method we have described, is still altogether different.

M. Laugier recommended, in 1838, tarred paper, cut in strips, for the immovable apparatus; but he made no mention of other uses to which it might be put, and did not even hint at the *stiff spica*, which constitutes in my eyes one of the chief advantages possessed by the paper. Malgaigne, who quotes M. Laugier, dismisses the subject with the remark that paper might answer where cotton or linen could not be obtained. But my purpose is to ask the attention of the readers of the American Practitioner to what I have found

to be really a most admirable substance for bandages and splints rather than to claim originality in its application.

I have used the Manila paper in the following cases:

First. A fracture of the femur in its upper fourth, complicated with a compound dislocation of the ankle, in a patient aged fifty; traumatic delirium for two weeks, during which time the straight splints and bandage, the inclined plane, and ordinary starched apparatus were used in turn, but which in his ravings the patient tore off. It was in this case that I was struck with the lack of power of the ordinary spica in supporting the upper fragment. The paper apparatus was now applied, and from this time the patient certainly had greater ease. A fenestrum about nine inches in length was cut over the injured ankle, taking away half of the dressing at that point, and leaving merely a band across the toes to support the foot; yet this was quite sufficient; the wound closed in nine weeks. When the apparatus was removed the thigh was found firmly consolidated; but one inch shortened, and motion preserved in the ankle-joint.

Second. C. F., age twenty, fractured the left thigh one inch below the great trochanter. Used inclined plane for the first week, with extension by weight and pulley; paper apparatus then applied. Apparatus removed in six weeks; consolidation perfect; shortening one inch.*

Third. A. C., age forty, fracture of thigh in lower third. Apparatus applied twelve hours after accident. Appeared at Prof. Yandell's clinic on crutches the following day entirely comfortable; apparatus still on.

Fourth. H. B., age thirteen, ununited fracture of lower third of femur of three months' standing. Injury had been treated with straight splints and roller. Paper apparatus applied; union in two weeks.

LOUISVILLE, DECEMBER.

* Prof. D. W. Yandell's case.

Reviews.

A Hand-Book of Medical Microscopy. By Jos. G. Richardson, M. D., Microscopist to the Pennsylvania Hospital, etc. Philadelphia: J. B. Lippincott & Co. 1871.

To the routine practitioner, one who goes upon his daily rounds content with the reflection that in his hurried visits and cursory examination of patients the diagnosis of the intricate nature of their complaints is accomplished, the announcement of such a work as the above is attended with little or no interest. But to one who is conscientious in the discharge of his duty, and who leaves no stone unturned to complete the chain of evidence bearing upon the clinical history of his cases, a work upon medical microscopy is looked upon as a valuable addition to the library.

The additions which the microscope has made to our sum of knowledge are incalculable. If it had effected nothing else, the light which its revelations have thrown upon urinary pathology alone would make it priceless. Pathological anatomy and pathology generally would indeed be bald without it; while toxicology and medical jurisprudence owe many of their late advances to its teachings. How often has the microscope solved a mystery which clouded a diagnosis! How often has it led to a rational course of treatment!

Without the researches of Gluge and Lebert, Virchow and Rheinhardt, Cohnheim, Clarke, Robin, Beale, and other patient explorers in microscopic science, whose toil was pleasure, and whose labor was one of love, medicine and medical microscopy would not be what they are to-day. The time was

when this instrument was in the hands of a few experts, and when it was considered a species of refinement and affectation for physicians to resort to it. But all this has passed away. We will soon be in an era, if we are not now, when every one claiming to be a scientific physician must consult the microscope and invoke its powers to lead him through the labyrinths of disease. In many cases it is certainly as indispensable as the ophthalmoscope in diseases of the eye, or the stethoscope in those of the chest. Its price and accessibility are assuredly no bars to its use.

These few remarks are suggested by a perusal of the admirable work before us. We commend it for its intrinsic merits, and not for the sake of mere empty eulogy. Dr. Richardson has executed his task wonderfully well. His labor has not been in vain. For the student and practitioner of medicine it is an invaluable guide. As a work for systematic study or perusal it is agreeable and instructive. For reference it is clear, plain, and practical, and to our thinking preferable to the more ostentatious and ponderous treatises of Quekett, Carpenter, and Beale. Dr. R. proceeds upon the correct idea that his readers know nothing about the instrument, that they are tyros in fact; and not, as many authors do, upon the supposition that they are well advanced and have little to learn. Minutiæ are therefore entered into, and the simplest matters explained, even down to how to wipe your slides and object-glasses. By easy gradations we are led up to subjects more abstruse, and what he teaches is taught thoroughly.

Space will not permit us to notice *seriatim* the different parts of this production. The subjects usually discussed in medical microscopy are handled with a conciseness and clearness not often met with. We trust that Dr. Richardson's work will meet with the success it so richly deserves.

In paying this complimentary tribute to Dr. R., we do so from a sense of the pleasure which a perusal of his book has

afforded us, and from a feeling of gratification that so able a monograph has emanated from the pen of an American.

We believe that the time is not far distant when every subject in medicine will be illustrated by the pens of American writers in such way that we will no longer be obliged, as hitherto, to depend so largely upon transatlantic sources for our medical literature. With such authors as the two Flints, Gross, Bumstead, Dalton, Hamilton, Richardson, and a host of others, we are beginning to be rich indeed in supplies.

C. R.

Renal Diseases: A Clinical Guide to their Diagnosis and Treatment. By W. R. BASHAM, M. D., Fellow of the Royal College of Physicians, etc., with illustrations. Philadelphia: Henry C. Lea. 1870.

In regard to the above work, able as it is, we can not conscientiously repeat the time-honored prefatorial expression that "it satisfies a want long felt by the profession." Urinary and renal pathology are peculiarly rich in treatises devoted to their consideration. Not to mention the older works, the more modern ones of Civiale, Gross, Bird, Johnson, Dickinson, Stewart, Roberts, and Beale abundantly satisfy our demands.

The work before us, however, is a concise and practical treatise upon renal diseases. Interwoven with much that is old and familiar, there is a great deal that is novel and instructive. The classification is bad, and the arrangement confusing. In reading a medical work we naturally glide from the pathology of a disease into its symptoms and treatment. It is not agreeable to be bandied about from chapter to chapter before we can finish the study of one affection. The physiology of the urine is placed at the end of the book. To our mind it would be better that this should precede a

consideration of its pathology. Faults such as these do not materially damage the general character of the book, but they are sufficiently grave to be corrected.

The work is divided into three parts: the first being devoted to nephritis, or inflammation of the kidneys from whatever cause arising; the second part to chronic albuminuria, or Bright's disease properly so called, this not being considered an inflammatory affection; and the third part to the urine and its clinical significance.

The first part, devoted to inflammatory affections of the kidneys, is ably handled. We have rarely met with a work so full and elaborate on this point. It will amply repay the reader to carefully study the chapters on renal inflammation caused by injuries and poisons, and that form of the affection which accompanies scarlatina.

The chapter on chronic albuminuria or Bright's disease is interesting and instructive, but does not approach, in point of learning, the able researches of Geo. Johnson of London, and Alonzo Clark and Austin Flint of our own country.

The last chapter in the work, on the urine and its clinical significance, is sufficiently clear and practical, but on the whole is not superior to that which we find on the same subject in many of our manuals. It is not comparable to Golding Bird, and is greatly surpassed by the last classical treatise of Lionel Beale.

The mechanical execution of the book is excellent, as is everything which issues from the house of Henry C. Lea.

C. R.

Physicians' Visiting List for 1870. Philadelphia: Lindsay & Blakiston.

This little pocket-companion has come to be essential to every physician who has ever used it. We could not be without it.

Lectures on Clinical Medicine. By A. TROUSSEAU, late Professor of Clinical Medicine, Paris, etc. Vol. III. Translated by JOHN ROSE CORMACK, M. D., F. R. S. E., etc. The New Sydenham Society, London. 1870.

We closed a former notice of this work (American Practitioner, October, 1870) with a summary of M. Trousseau's treatment of pneumonia.

Lecture XXXVII. is devoted to paracentesis of the pericardium. The operation, as a mere surgical procedure, is simple enough, and is stated by our author to be almost free from risks, while experience proves the safety of injections for the radical cure of dropsy of the pericardium. M. Trousseau prefers the bistoury to the trocar. He is afraid in using the latter of wounding the heart, which he thinks, in place of flying before the instrument, might, as stated by Senac, come up to meet it, and thereby be run through. He incises the skin about the fifth, sixth, or seventh sterno-costal cartilage, immediately external to the sternum, directly over the point where the dullness is greatest, and where it is most difficult to detect the cardiac impulse. He endeavors to penetrate between two cartilages, making the incision as near as possible to the sternum. He now separates the edges of the two cartilages with a suitable lever as a spatula, or if necessary he removes a portion of the cartilage sufficient to admit the end of the finger. He thinks it of the first importance to use digital examination in order to ascertain that there is sufficient space between the heart and the point at which the pericardium is opened. The fluid is withdrawn through a canula; that it may be done completely the instrument should remain some time in the pericardium. No manipulations nor suction-pumps are required to accelerate the evacuation. When the canula is withdrawn the wound is closed with a bit of plaster, which is kept in its place by a band round the body. The operation seldom gives rise to much inflammation and never leads even to limited suppuration. Tapping the

pericardium is justifiable only in cases in which the extent of the effusion imperils life. Such occasions are very rare. When performed in suitable cases it is capable of relieving suffering and prolonging life.

Spermatorrhea. This condition about which so much has been written, and until of late years so little understood, depends upon very many other causes than those made classic by Prof. Lallemand. It may be the result of atony of the organs which secrete the seminal fluid, or of their too energetic contraction. M. Trousseau likens spermatorrhea occurring under the first of these states to diurnal incontinence of urine, and says the same treatment is equally efficacious in both maladies. Cauterization should be limited to spermatorrhea arising from inflammation of the urethra. Where the affection depends upon other causes it demands an entirely different treatment. Where the spasmodic element predominates, belladonna, though less efficacious than in nocturnal incontinence of urine occurring in similar states, often proves of service. The preparations of digitalis and aconite, and the internal use of the nitrate of silver, are also of undoubted efficacy. Our author holds that spermatorrhea is always associated with "spinal irritation, or at least an altered state of the spinal marrow, depending perhaps on congestion of the cord;" and his treatment is in accordance with this view. Cups dry and wet, tincture of iodine, stimulating embrocations, moxas, and flying cauteries over the spine, are among the means which he uses. "When the disease depends upon an excess of energy in the contractions of the vesiculæ seminales and ejaculatory ducts," he orders *warm* hip-baths to be used as hot as the patient can bear them, with bags of hot sand applied to the perinæum at night when the patient goes to bed; but in *passive* spermatorrhea cold bathing and strychnine are indicated. Where all these means fail, our author resorts to compression of the prostate gland by means of "a sort of metallic bung, of the form of a very elongated olive,

varying in size between a pigeon's egg and a small hen's egg," fixed on a suitable stem. M. Trousseau has treated one case of spermatorrhea successfully by rupture of the sphincter-ani.

Nocturnal Incontinence of Urine. The immediate cause of incontinence is excess of irritability in the muscular fibers of the bladder; in a word, it is a neurosis. Wherever the resistance of the sphincter is not sufficiently powerful the urine will escape involuntarily. In paraplegia and paralysis this defective resistance is absolute; in nocturnal incontinence the deficiency is only relative.

Belladonna (or atropine), given in accordance with certain rules, is believed by our author to be almost an infallible remedy for incontinence resulting from excessive irritability of the bladder. When the disease, instead of growing exclusively out of this condition of the muscular fibers of the organ, is associated with atony of the sphincter and of the entire bladder, belladonna is less useful. In these cases (in which the incontinence is both diurnal and nocturnal) the preparations of strychnine are indicated. Very few physicians in this country will be found to agree with M. Trousseau as to the infallibility of belladonna in nocturnal incontinence. Many cases are cured by alkalies after both belladonna and strychnine have failed. Cubebs will cure others; mechanical means yet others; and lastly the chloral hydrate seems to be winning laurels in this troublesome field of medical practice.

Polydipsia. In polydipsia, properly so called, the urine is clear like water, and never contains a trace of sugar; yet there is an undoubted connection between this condition and glucosuria. The well-known experiment of Claude Bernard seems to render it more than probable that a perturbation of the nervous system, the exact nature of which is unknown, is the leading cause of both albuminuria, saccharine diabetes, and polyuria.

The three phenomena of the first stage of polydipsia are extreme thirst, the passage of enormous quantities of urine,

and usually a ferocious appetite. The digestive functions are often not at all disturbed, and the general health continues even good. Here polydipsia is a troublesome infirmity rather than a disease. Occasionally it is a transient condition; at other times it is life-long. It sometimes begins in childhood, grows more marked at puberty, and persists in spite of treatment. It often occurs in the offspring of glucosuric and albuminuric parents. In most cases anorexia, diarrhea, and wasting soon take the place of the boulimia. The symptoms become more and more alarming, and tubercular phthisis sets in, as it is so often known to do in glucosuria. According to M. Trousseau's observation, polyuric patients waste away more rapidly and die much earlier than those with saccharine diabetes. He has little faith in treatment in polydipic patients. In the few fortunate instances where polydipsia does not materially affect the general health, valerian in very large doses, and continued throughout long periods of time, is thought by our author to be the best remedy. He makes no mention of the use of blisters to the nape of the neck; a treatment which would grow naturally out of the pathology of the affection as revealed by Bernard. In a case of polyuria now under the care of the writer, valerian, at first well borne by the stomach, finally produced, as it did in a case mentioned by the author, vomiting, and was abandoned. A blister to the nucha seemed to do temporary good; but the only real abatement of the symptoms has occurred under full doses of opium. M. Trousseau saw no benefit from opium. Arsenic he does not allude to.

Glucosuria and stomachic vertigo are discussed in the remaining chapters of this original and most interesting work. But our space is exhausted. The reader is referred to the volume itself, which has been issued by Lindsay & Blakiston since the first notice of it was made in this journal.

Clinic of the Month.

Ill Effects of Chloral.—Dr. Habershon, of Guy's Hospital, recently ordered (Lancet) half a drachm of chloral to a patient suffering with pain and dyspnœa, due to an aneurism of the thoracic aorta. He became unconscious immediately after taking the medicine, and for about five hours death seemed to be impending. He gradually recovered.

Dr. Habershon remarked that the result confirmed the opinion he had formed of the effects of chloral in pneumonia and bronchitis; that through the means of the pneumogastric nerve it had a tendency to produce congestion of the bronchial tubes and the lung generally, and is not a suitable medicine in cases where the respiration is liable to embarrassment.

The Temperature in Phthisis. — Assistant Surgeon Boileau *(ibid.)* says that the positive evidence of elevated temperature in a doubtful case of tuberculosis is of great value, while the absence of such elevated temperature is no proof that tuberculosis is not present. It is not even a proof, he asserts, that tuberculization is not in progress. Fully recognizing the value of the thermometer to the clinical observer, it must be admitted great care is demanded of us in the interpretation of the information it affords; and that, in phthisis especially, we must not be carried away with the idea that the thermometer will enable us positively to say, in a doubtful case, whether the patient is suffering from the disease or not.

MERCURY IN SYPHILIS.—Mr. Skey, in a recent clinical lecture on this subject, says *(ibid.)*: "If the local sore can be subjected to treatment within a term of three days, free cauterization with nitric acid or other escharotic will generally convert it into an innocuous ulcer. After three or four days the treatment throughout should be purely negative. No specific agents are useful. Simple dressing of spermaceti is as good as any other. In the latter stage, or that which immediately precedes cicatrization, the nitrous oxide of mercury ointment will accelerate the healing process. No condition of this sore in any of its well-marked stages can warrant the employment of mercury." When dealing with constitutional syphilis he continues: "In whatever form you administer mercury, watch carefully its effects on the local disease and on the constitution. As the hardness subsides, reduce the dose in relation to the influence it appears to exercise. Avoid salivation in every stage, and maintain your patient's strength throughout. In the constitutional or eruptive stage, when it assumes the dry forms of psoriasis or of lepra, mercury is less injurious to the health in protracted cases; but employ it sparingly in all moist eruptions, vesicular, pustular, or impetiginoid. A great and valuable adjunct is ever found in iodine, and the iodide of potash, in doses from five to fifteen grains, will often supersede the employment of mercury entirely. It may be combined with full doses of the tincture of bark. Do not mistake phagedena for syphilis; and here I speak with some hesitation, knowing that the two diseases are not unfrequently confounded. Syphilis is characterized by a hard deposit, phagedena by destruction of tissue. This destructive process is obtained by active ulceration or by sloughing; sometimes both processes are united in the same wound. Commencing from a local venereal sore, the sore extends, ulcerates rapidly, sloughs, and burrows beneath the surrounding tissue. The local actions may be destroyed by nitric acid, but the disease bursts out in the form

of an eruption, which quickly develops in that of active and destructive ulceration in any part of the surface of the whole body. As to treatment, I would say any remedy but mercury: iodides of iron and potash, good air, ample diet, wine in moderation, and nitric acid (pure or diluted), locally applied in proportion to the activity of the destructive local actions."

LITHOTOMY AND LITHOTRITY.—At the recent meeting of the British Medical Association, Mr. Teevan stated (New York Medical Journal) that when possible, lithotrity ought always to be preferred to lithotomy in adults. For the successful performance of lithotrity, the stone ought to be of moderate size, and the bladder not too much diseased. The removal of a calculus by lithotrity was one thing, and the cure of the patient another thing; for there were sufferers now alive in whom surgeons had successfully removed the calculi by the lithotrite and yet failed to cure the patients—a state of chronic cystitis and paralysis remaining. In old men the lithotrite ought only to be used for a couple of minutes at a sitting, the patients being merely confined to bed for a day or so in each week. In young men large phosphatic stones might be crushed with safety. Extensive heart-disease forbade lithotrity, as patients had lost their lives while straining in passing fragments. Much information was yet required before we could ascertain the extent to which the introduction of the lithotrite had reduced the mortality after operations for stone. The median operation of lithotomy was only justifiable for small stones, and these had much better be crushed. In lateral lithotomy the stone ought to be cut and not torn out. There was no such thing as dilatation of the prostate; it could be torn, but not dilated. The external incision ought to commence low down, as thereby less blood was lost. The internal incision ought to be free, as the chief dangers incident to lithotomy were phlebitis and

pyæmia, resulting from the bruising of the parts in tearing out the stone. A rectangular staff ought to be used, and held with two hands, the lower resting on the pubes. The forceps was unnecessary in children, and often in adults; for in the former the stone could be better removed by the left forefinger, and in the latter a simple polypus forceps ought to be used, when wanted, in preference to the heavy and unwieldy instrument now employed. The introduction of a tube after lithotomy was useless if there were a good assistant in charge of the case. Mr. Teevan had operated on eleven boys and three adults by lithotomy, and had performed lithotrity on six adults; a total of twenty cases with two deaths.

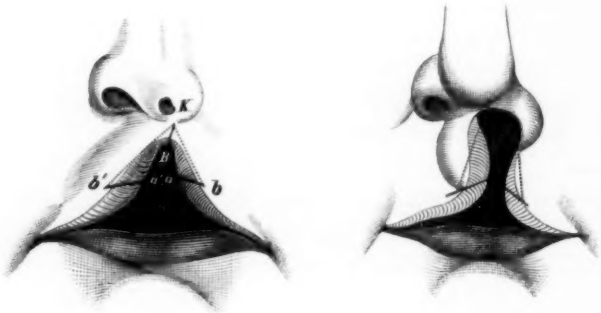
Sir Henry Thompson, speaking before the Royal Medical and Chirurgical Society, said: "Lithotrity is an eminently successful operation. For a certain number of cases its success may be regarded as a certainty—absolutely without fear of any contingency, except such as attends the minor operations of surgery—for example, the opening of a small abscess or the passing of a catheter. He had never lost a patient in the whole course of his experience after crushing a stone which was no larger than a small nut; and this he considered was a size at which, with a few exceptions, every stone ought to be discovered. When lithotrity is employed for stones as large as a date or a small chestnut—and it is impossible to deny the excellent chance of success which this method offers to the subjects of such stones—a certain but still only small proportion of deaths must be expected. The rate of mortality will correspond with augmentation in the size of the stone, and with the amount of existing disease and age on the part of the patient. Given a small stone in a fairly healthy person, and success is certain; the possibility of contingency in such a case depending only on the presence of those remote and excessively rare conditions which will make for an individual here and there the mere passing of a catheter

a cause of death. The rule observed had been, for the most part, to apply lithotrity to all calculi obviously less than an ounce in weight, easily discovered by sounding, and to operate on all larger ones by lithotomy."

A New Operation for Hare-lip.—Dr. Wm. Stokes, jr., of Dublin, has proposed, in a late number of the Dublin Quarterly, a new method of remedying the defect of hare-lip, which it seems to us possesses advantages over any procedure yet devised. It would certainly seem to obviate the subsequent occurrence of the two defects which so often, even in the most skilled hands, occur after the operations now in general use; namely, the notch at the red border of the lip and the subsequent groove in the line of the cicatrix. The great breadth and thickness of the opposing raw surfaces secured by this method make the vertical sulcus simply impossible, while the plan devised by Dr. Stokes for preventing the formation of a notch would appear to obviate all liability to that deformity. The advantages claimed by the Dublin surgeon for his operation are: 1. No subsequent curtailment of the projection at the lower extremity of the cleft is necessary. 2. The procedure is applicable to all forms and varieties of hare-lip. 3. There is no chance of portions of the soft tissues perishing from any twisting of them. 4. There can be no subsequent puckering. 5. There can be no subsequent notch. 6. The possibility of any vertical sulcus or groove in the line of the cicatrix is also prevented.

The operation may be thus described: the complete incisions, or those through the entire thickness of the lip, are indicated in the accompanying diagram by black lines; the others, or those which do not go through the entire lip, are indicated by dotted lines. The premaxillary bone is dealt with in the ordinary manner, either by pushing it back or by first removing a V-shaped piece of the vomer. In order to command the hemorrhage and dispense with the aid of the

fingers of assistants, Dr. Stokes applies at each angle of the mouth one of the largest of Mr. Nunneley's artery forceps; then with a curved scissors he divides all the false frena. He coincides with Mr. Collis in thinking it unnecessary to touch the true frenum, "as the parts can be brought into perfect apposition without meddling with it." Seize the edge of the cleft at its lower extremity with a double hook, draw the parts forward, in order to put them on the stretch, and with a fine narrow-bladed knife make an incision through the entire thickness of the lip, taking care, however, to stop at about two or three lines above the red border of the lip. Then make another similar incision on the opposite side.



Two *serres fines* must then be applied to the extremities of these flaps, which have the two-fold advantage of arresting any hemorrhage, however slight, that may occur, and also by their weight making the flaps hang down below the red border of the lip, thus keeping them out of the way of the operator until the time comes for uniting them by a point or points of interrupted suture. The two points *a* and *a'* can thus be brought down below the red border of the lip, thus forming a projection, and effectually getting rid of the subsequent occurrence of a notch in this situation. The next step of the operation consists in making a vertical incision (K B) through the entire thickness of the lip, with a small straight

scissors at the upper angle of the cleft. This, of course, is only necessary in cases where the labial cleft does not extend into the nose. Making the partial incisions at the edge of the cleft on either side constitute the third stage of the operation, and for these the knives that answer best are Graefe's cataract knife, a straight iridectomy knife, or Pollock's knife. These incisions are made going through fully two thirds or three fourths of the thickness of the lip from the upper point of the vertical incision K down to *b* on one side, and from K to *b'* on the other. Great care should be taken to prevent the knife going too far and wounding the mucous membrane of the lip. The two quadrilateral flaps (K B *a b*) and (K B *a' b'*) united behind by the mucous membrane of the posterior aspect of the lip, can then with great facility be turned back, and the broad raw surfaces of each brought into apposition. A tolerably strong, well-tempered spear-pointed needle should then be introduced from *b* to *b'*. In the great majority of cases one is sufficient. A second may, however, be introduced higher up, and the raw surfaces of the quadrilateral flaps approximated by an ordinary figure-of-eight suture. When, however, a second needle is not deemed necessary, the edges can be approximated and held together by fine entomologist pins. For the point of suture below fastening the points *a* and *a'* the fine Chinese suture-silk can be used with great advantage. Dr. Stokes advocates the late operation for hare-lip, believing that better results are obtained after than before dentition.

THORACENTESIS. — Dr. Jas. Cuming, Belfast, Ireland, gives *(ibid.)* the following practical rules laid down by Bartels regarding the selection of cases in which thoracentesis is to be performed: "In all cases of simple serous effusion, accompanied by signs of displacement, the operation is requisite if the physical signs show that absorption has not commenced within a moderate time. It is not advisable to

operate as long as febrile symptoms are present, unless there be urgent symptoms, such as distinct and considerable embarrassment of the circulation or of the respiration. The entrance of air into the pleural cavity is to be carefully prevented in cases of serous effusion. Purulent effusions are best treated by the establishment of a large fistulous opening, which permits a continuous discharge of the thoracic contents. If these effusions are removed by the trocar they rapidly accumulate afresh and exhaust the patient. If on puncturing the chest an effusion which had been regarded as serous is found to be purulent, it is advisable to remove the trocar and make a pretty large opening at once. The effusion is almost invariably purulent if pleurisy has occurred in connection with pyæmia, puerperal fever, and the like; if a febrile condition continues without any other cause after the effusion has ceased to increase; and is certainly purulent if œdema of the subcutaneous cellular tissue exists on the affected side. If pneumo-thorax coëxist with purulent effusion, the operation is indispensable to prevent the contamination of the system by septic fluids. To prevent septic infection it is necessary to cleanse the pleural sac daily, either by injections of water or of a weak solution of common salt, or by insufflation of air. Opening the cavity of the thorax by means of a bistoury is reserved for those cases in which a permanent fistulous opening is required." Dr. C. himself thinks the pneumatic aspirator (*vide* American Practitioner for August, 1870) possesses advantages over any other instrument for this operation.

CHOREA.—In an epidemic of this disease *(ibid.)* observed last winter in Prague by Dr. Steiner, Fowler's solution was found to be the best remedy. Of this two to three drops were given daily, increased by a drop every second or third day, till in some cases seven or eight drops were administered. The quantity was gradually lessened when improve-

ment occurred. When the agitation was considerable, and especially when it continued during sleep, laudanum was combined with arsenic in the following proportion: Fowler's solution, eight drops; tincture of opium, six drops; distilled water, four ounces; M. Of this four dessert-spoonfuls were given daily. The writer adds: "It was very rarely found that symptoms of the physiological effects of arsenic were produced." Two drops of Fowler's solution and a drop and a half of laudanum given to a choreaic child within twenty-four hours is *not* severe treatment.

Pleuritic Effusion Treated by Denying the Patient Fluids.—Dr. Glauert reports that Niemeyer adopted in a case of pleuritic effusion a modification of what is known in Germany as the Schroth-cure. All drinks and fluid nourishment were forbidden, and the patient restricted to bread and slightly-salted sausages. Effusion existed in the right pleural cavity, extending upward to the third intercostal space; the attack had lasted fifteen days; all febrile reäction had ceased. During the first two days of the treatment the patient suffered greatly from thirst, and was scarcely able to swallow anything, owing to the dryness of his mouth. He adhered, however, rigorously during three days to the directions given him, with the exception of licking with his tongue some of the moisture deposited on the inside of the window-panes. During the three succeeding days he was allowed half a pint of wine daily. The amount of urine secreted during each of these three days averaged only fourteen ounces and a half. Absorption of the fluid took place rapidly. On the fourth day of the treatment friction sounds reäppeared, and on the sixth day dullness was only recognizable immediately above the liver. The patient was now permitted to eat and drink as he pleased, and in two days was completely well. His appetite and general condition were good, and all traces of effusion had disappeared. (Edinburgh Medical Journal.)

Carbonate of Ammonia in Catarrhal Pneumonia of Nurslings.—Dr. Stierlin considers *(ibid.)* that ammonia is almost a specific for this form of disease. He has treated about one hundred and fifty cases, of whom he has only lost seven, five of them having been seen for the first time after extensive atelectasis had been formed, and the disease already far advanced. He considers ammonia indicated whenever a young child is seized with catarrhal pneumonia, either after measles or bronchitis. If the patient is less than eight months old or feeble, the ammonia is given from the first, and alone, employing sinapisms also. But when the children are stronger or older, he gives them first an emetic, wraps them in a wet sheet, and applies ice over the chest, giving the carbonate of ammonia on the second or third day. This is immediately followed by a great alleviation of the symptoms, and rapid decrease of the fever. The action of the ammonia is in all such cases most remarkable, almost magical, and no preparation seems so useful as the carbonate, of which twenty grains may be dissolved in two ounces of fluid, and given in tea-spoonful doses every hour at first, subsequently every two hours; older children, of course, to have a larger dose than younger ones. *(Berliner Klinische Wochenschrift.)*

The editor of the Edinburgh Medical Journal adds his own testimony to that of Dr. Stierlin as to the magical influence of carbonate of ammonia in this form of pneumonia.

Chronic Urticaria.—Very few diseases are more rebellious to treatment than this affection. Niemeyer says: "We do not know of any efficient remedy for chronic urticaria." Edward Long Fox (Journal of Cutaneous Medicine) says: "The disease itself is a neurosis, and its exciting cause is irritation at the periphery of an eisodic nerve." In cases where the exciting cause is connected with the pelvic viscera, Dr. Fox has found arsenic useless; but has derived benefit from the bromides, and especially from a combina-

tion of the bromides with iron. Hebra has no faith in alkaline baths in this form of urticaria; Dr. Fox has whenever it is accompanied by uterine or ovarian trouble. He recommends these baths to be given of a temperature not above 80° Fahr., and continued twenty to forty minutes. He believes they relieve local congestion, and that their effect may be much enhanced by warm vaginal injections.

GLYCEROLE OF STARCH. — This preparation is made by rubbing well together one part of starch in eight of glycerine; then heat the mixture gradually to 240° Fahr., constantly stirring until a translucent jelly is formed. The glycerole of starch is a capital substitute for lard in making ointment. Moreover, this preparation of starch seldom becomes spoiled, and keeps for a very long time. As a local remedy in many acute affections of the skin, and to prevent the pitting of small-pox, it deserves a more extensive trial. *(Ibid.)*

IODIDE OF LEAD OINTMENT. — Dr. Purdon thinks this ointment is not fully appreciated by dermatologists. He esteems it very useful in some varieties of psoriasis, in tinea circinata, and in scrofulous affections. *(Ibid.)*

BLISTERING PAPER. — White wax, eight ounces; sweet-oil, four ounces; spermaceti, three ounces; turpentine and powdered cantharides, of each one ounce; boil for two hours, with constant stirring, in ten ounces of water; strain through flannel, and while hot spread it on paper. (Journal of Applied Chemistry.)

TREATMENT OF ENLARGED TONSILS. — A writer in the British Medical Journal states that in chronic cases of enlarged tonsils he has never seen any permanent good from incision, but has obtained the best results from alum, either as a gargle or in powder, applied with a damp brush, or as a

dust of equal parts of burnt alum and gum-arabic, blown upon the parts with an india-rubber bottle. The applications require to be persevered in. Another physician thinks the sulphate of potassa in doses of from five to fifteen grains, given every morning for five or six weeks, almost a specific for enlarged tonsils in children. Should the remedy produce purging, the dose should be lessened.

Treatment of Infantile Diarrhea.—Dr. R. W. Foss *(ibid.)* recommends the powder or mucilage of gum arabic, one part to three of water, in the diarrhea of infants. He adds a quarter of a grain of gray-powder to five grains of the powdered gum for cases in which the stools are green, or pure fluid and involuntary.

Croton Oil in Scarlatinal Dropsy.—Dr. Liddell *(ibid.)* states that in cases of dropsy following scarlet fever he has obtained highly satisfactory results from one eighth to a quarter of a drop of croton oil, repeated every two hours until free purgation is produced. He administers it daily until the dropsical symptoms subside.

Indian Hemp in Menorrhagia and Dysmenorrhea.—Dr. Silver (in the Medical Times and Gazette) recommends twenty-five minim doses of the tincture of Indian hemp in these affections. The remedy is especially adapted to the functional varieties of these diseases.

Fistula in Ano.—W. B. Fletcher, M. D., one of the editors of the Indiana Journal of Medicine, says in an article on this subject: "In regard to treatment, I have observed but one rule, and that was to disregard the condition of the patient, and to operate at once and always with the knife. I pursue this course from the fact that I have not been able to increase the health of a patient while the drain and annoyance

to his system was kept up by the disease—whereas, after operation, under good diet, they readily take flesh and gain strength. I prefer the knife, because it is quick, clean, and sure, and by far less painful than the ligatures or any other method I have observed." After the operation Dr. Fletcher dresses the parts with carbolic acid solution, which he says is a most painless application, and has the good effect of keeping the edges from uniting.

LACING THE BREAST.—A year or two ago Dr. H. R. Storer, the accomplished editor of the Gynæcological Journal, "*pocketed the pedicle.*" He now describes a new operation for removal of the mamma under the term *lacing the breast.* "The tumor being removed by incision, three deep quilled metallic sutures, passing down to and through the pectoralis, were inserted at a distance of an inch and a half from the lips of the wound, and this latter was closed by ten superficial sutures of annealed iron wire. One or two vessels were sealed by acupressure pins, the heads of which emerged from between the stitches; these were removed upon the second and third days. No adhesive plaster or other dressing was employed. The method of closing the wound was peculiar in the following respects: the deep quilled sutures having been inserted and fastened, the base of the wound was thus closed. The superficial stitches were all inserted before any of them were twisted. Twisting was applied to the first and the last three; the extremities of the central four were then brought together and twisted a little more tightly than the others had been; this, of course, loosened the latter. Tightening these again loosened the central sutures, and this process was repeated until the wound was completely and neatly closed." The advantages claimed by Dr. Storer for his method for coäptating the edges of the wound are briefly: 1. It enables us to obtain union by first intention throughout the wound as well as superficially; 2. It prevents the forma-

tion of a pocket of pus; 3. It thus saves to the patient the drain upon her general system; 4. By the narrow and linear cicatrix which it secures it materially lessens the chance of a return of the disease; 5. It very much lessens the resulting deformity.

Chloral Hydrate in Hooping-cough.—A correspondent of the Practitioner reports fifteen cases of pertussis treated by chloral, in thirteen of which he claims the remedy gave satisfactory results.

Mr. Frederick Waterhouse states that to mitigate the severity of the paroxysms in this disease chloral is invaluable. He thinks chloral has a tendency to accumulate in the blood and cause lung congestion. To correct this he gives a morning emetic, which generally prevents it and gives much relief to the patient. He gives the drug in small doses; five grains at bed-time for a child five years of age seldom fail having effect, in fact often keep it drowsy next day. "If the paroxysms are so severe as not to be influenced by the chloral, it is better to assist its action by applying belladonna to the nape of the neck, or by administering hydrocyanic acid, conium, or hyoscyamus, than to largely increase the dose. It must be used with the greatest caution if pneumonic symptoms present themselves."

Abuse of Hypodermic Injections of Morphia.—Dr. C. Allbutt, who has been prominent in recording the virtues of morphia given hypodermically, writes in the Practitioner that he is beginning to suspect that harm may sometimes result from it, and calls the attention of the profession to this less pleasant side of the account. Injected morphia, though free, in one sense, from the ordinary evils of opium-eating, has seemed to Dr. A. capable nevertheless of creating the same artificial want, and thus gained credit for assuaging a restlessness and depression of which it was itself the cause. He

believes that the use of this remedy as a solace from pain during the careful use of other therapeutical means can do nothing but good; but that in many cases he suspects that a reliance upon hypodermic morphia begets a state of perpetuated pain, of irritability and depression, and of artificial need of a certain stimulant, which he has observed in certain cases of neuralgia.

PREPARATIONS OF CONIUM.—Dr. John Harley, in an exhaustive paper *(ibid.)* on the characters and relative medicinal value of the several preparations of hemlock, declares the advantage of the green fruit over every other part of the plant is so clear and decided that it should always be selected as the basis of the tincture and the extract. He considers the extract of the pharmacopœia a scandal to the present state of medical knowledge, and says a spirituous extract of the green fruit ought as soon as possible to take its place; "then indeed we shall have an extract of which the proper dose will be from two to six grains instead of from twenty to sixty grains or more, which is the efficient dose of the present extract." Dr. H. estimates that a dozen plants of hemlock will yield a pound of green fruit, from which "may be made a *tincture* stronger than any juice that can be produced, and an *extract* of which three grains would produce decided effects in most persons."

A NEW OPERATION FOR NÆVUS.—G. H. Brandt, M. D., has devised *(ibid.)* an instrument on the principle of the entropion forceps which has enabled him to cure nævi in certain situations where other methods had failed. He reports two cases of nævus of the cheek successfully treated as follows: the flat blade of the instrument was placed on the outside of the cheek, and the fenestrated plate applied through the mouth against the tumor; a few turns of the screw approximated the two blades in such a way that part

of the tumor bulged through the opening in the inner blade, and compressed it to such an extent that no communication could take place either in or out of that part of the tumor. He then injected the tincture of the perchloride of iron at 30° by means of a Pravaz syringe, and then withdrew the needle of the syringe; the coägulation of the blood was rapid and no blood escaped. The compressor was kept on for five or six minutes, and then gradually unscrewed and removed. "This was repeated eight times on different occasions, until the whole of the mass was coägulated. After each injection slight swelling occurred, which was kept down by cold external applications." The clots which remain at the seat of a nævus after injections with iron become hard and encysted, and often take a long time to become absorbed. Dr. Brandt advises to make a small opening and remove the clots, which he was enabled to do on two occasions, from the inside of the cheek.

Chronic Dysentery.—Dr. Harry Leach, of the Seamen's Hospital, states *(ibid.)* that in that institution the treatment of chronic dysentery now consists in the strictest and most persistent rest to the body and to the bowel. Gentle nursing, scrupulous cleanliness, an equally warm temperature are of very great importance. A very bland diet of fluid or semi-fluid food, and no stimulants of any kind, unless prostration be extreme. An occasional dose of castor-oil with a few drops of laudanum may be prescribed, because it relieves tenesmus, and a placebo should be always given, because in such tedious cases it is well to influence the mind in the conservation of the body. The most favorable results can of course only lead to comparative restoration to health; but much good may be done by nursing and feeding cleverly, rather than physicking and stimulating actively, patients suffering from chronic dysentery.

Notes and Queries.

CHLORAL *IS* DANGEROUS.—A leading physician of this city, who has made very extensive use of chloral hydrate, recently gave it to a consumptive lady. She had repeatedly taken it in doses of from ten to fifteen grains, with relief to her cough. On one or two occasions she had taken as much as twenty grains, in which quantity its hypnotic effect was most decided. An article of chloral, obtained a few moments before from the druggist who had furnished it previously, was taken on going to bed in a dose of one scruple. The patient passed quickly into sleep, and soon after became comatose. She lay for twelve hours in a coma, which was so profound as to excite the liveliest apprehension on the part of her physician. No uremic poisoning existed. The patient recovered.

THE MANGE IN DOGS.—Several medical friends who own dogs have asked us what the "mange" in these animals is. Dr. Purdon, of Belfast, Ireland, the editor of the Journal of Cutaneous Medicine, and who, it seems, has been asked the same question, answers: "Red mange is ordinary eczema rubrum. When the disease proves contagious it is either scabies or tinea circinata."

POISONING BY ARSENIC—RECOVERY.—E. W. King, M. D., of Galena, Indiana, writes that Mrs. S. took, with intent to commit suicide, seventy-five grains of arsenious acid at four o'clock one afternoon, and repeated the dose the next day at one o'clock. Four hours after Dr. King saw her, and by the

free use of the hydrated-sesqui-oxide of iron he saved her life. A few days after her recovery the patient drowned herself in a well.

MIASMATIC HEMATURIA.—Dr. John W. Peavy, of Barton, Miss., communicates the following: "I have found this very troublesome affection yield I think more rapidly under the use of nitro-muriatic acid, morphine, and quinine than to any other means. In a few cases small, but *very* small, doses of calomel may be required. I think I have seen the chlorate of potash act well, when largely diluted, as a depurator."

WOMAN AND HER PHYSICIAN.—We had the pleasure of presenting to the readers of the American Practitioner, in the November number, a lecture by Professor John E. Crowe, M. D., which was delivered as the formal introductory to the regular winter term of lectures in the Medical Department of the University of Louisville. We issue with the present number a lecture on "Woman and her Physician," delivered by Professor Parvin, as introductory to his course in the same institution. These lectures, it will be observed, are published as supplements, and take up none of the regular space of the journal. They are so much additional matter.—D. W. Y.